

Sequence Listing

<110> Botstein,David

Desnoyers,Luc

Ferrara,Napoleone

Fong,Sherman

Gao,Wei-Qiang

Goddard,Audrey

Gurney,Austin L.

Pan,James

Roy,Margaret Ann

Stewart,Timothy A.

Tumas,Daniel

Watanabe,Colin K.

Wood,William I.

<120> Secreted and Transmembrane Polypeptides and Nucleic
Acids Encoding the Same

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 50 55 60
 Val Ser Ser Arg Lys Gln Gln Asn Val Asp Gln Ala Val Ala Thr
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 Gly Lys Ala Glu Asp Arg Glu Arg Leu Val Ala Thr Ala Val Lys
 95 100 105
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 Lys Thr Leu Asp Ile Asn Val Lys Ala Pro Ala Leu Met Thr Lys
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 170 175 180
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 185 190 195
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 200 205 210
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 215 220 225
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 230 235 240
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 35 40 45
 Phe Val Pro Arg Pro His Thr Ala Pro Leu Gly Gly Ala His Ala
 50 55 60
 His Val Leu Gly Met Val Pro Pro Ala Cys Leu Pro Gly Asp Glu
 65 70 75
 Val Gly Ser Glu Gln Arg Gly Glu Gln Val Thr Asn Gly Arg Glu
 80 85 90
 Ala Gly Ala Glu Leu Leu Thr Glu Val Asn Arg Leu Gly Ser Gly
 95 100 105

Ser Ser Ala Ala Ser Glu Glu Glu Glu Glu Glu Glu Glu Pro Pro
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 Arg Arg Thr Leu His Leu Arg Arg Asn Arg Ile Ser Asn Cys Ser
 125 130 135
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 140 145 150
 Pro Glu Leu Cys Leu Glu Glu Leu Asp Ala Ala Ile Pro Gly Ser
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 Pro Pro Ala Thr Ala Ser Glu Trp Arg Leu Ala Gln Ala Gln Gln
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 Ser Ala Gln Ser Glu Lys Arg Leu Gln Glu Leu Glu Arg Asn Val
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 350 355 360
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Ile Asp Gly Lys Leu Arg Gln Gly Ser	Leu Leu Ser Pro Glu Glu	
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575	580	585
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Glu Glu Gln Gln Arg Leu Val Tyr Trp	Leu Glu Val Ala Leu Glu	
620	625	630
Arg Gln Arg Leu Glu Met Asp Arg Gln	Leu Thr Leu Gln Gln Lys	
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Glu His Glu Gln Asn Met Gln Leu Leu	Leu Gln Gln Ser Arg Asp	
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Arg Ile Gln Ala Leu Glu Lys Glu Leu	Gly Arg Tyr Met Trp Ile	
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 35 40 45
 Lys Ile Tyr Asn Pro Ser Glu Gln Cys Cys Tyr Asp Asp Ala Ile
 50 55 60
 Leu Ser Leu Lys Glu Thr Arg Arg Cys Gly Ser Thr Cys Thr Phe
 65 70 75
 Trp Pro Cys Phe Glu Leu Cys Cys Pro Glu Ser Phe Gly Pro Gln
 80 85 90
 Gln Lys Phe Leu Val Lys Leu Arg Val Leu Gly Met Lys Ser Gln
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 Cys His Leu Ser Pro Ile Ser Arg Ser Cys Thr Arg Asn Arg Arg
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 His Val Leu Tyr Pro
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50 55 60
Glu Leu Gly Arg Pro Ala Arg Asp Glu Gly Gly Ser Gly Arg Asp
65 70 75
Trp Lys Ser Lys Ser Gly Arg Gly Leu Ala Gly Arg Glu Pro Trp
80 85 90
Ser Lys Leu Lys Gln Ala Trp Val Ser Gln Gly Gly Gly Ala Lys
95 100 105
Ala Gly Asp Leu Gln Val Arg Pro Arg Gly Asp Thr Pro Gln Ala
110 115 120
Glu Ala Leu Ala Ala Ala Ala Gln Asp Ala Ile Gly Pro Glu Leu
125 130 135
Ala Pro Thr Pro Glu Pro Pro Glu Glu Tyr Val Tyr Pro Asp Tyr
140 145 150
Arg Gly Lys Gly Cys Val Asp Glu Ser Gly Phe Val Tyr Ala Ile
155 160 165
Gly Glu Lys Phe Ala Pro Gly Pro Ser Ala Cys Pro Cys Leu Cys
170 175 180
Thr Glu Glu Gly Pro Leu Cys Ala Gln Pro Glu Cys Pro Arg Leu
185 190 195
His Pro Arg Cys Ile His Val Asp Thr Ser Gln Cys Cys Pro Gln
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Cys Lys Glu Arg Lys Asn Tyr Cys Glu Phe Arg Gly Lys Thr Tyr
215 220 225
Gln Thr Leu Glu Glu Phe Val Val Ser Pro Cys Glu Arg Cys Arg

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Pro Ile Cys Lys Asn Gly Pro Asn Cys Phe Ala Glu Thr Ala Val	275	285
Ile Pro Ala Gly Arg Glu Val Lys Thr Asp Glu Cys Thr Ile Cys	290	300
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 13
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<210> 14
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Oligonucleotide Probe

<400> 14
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<210> 15
 <211> 1587
 <212> DNA
 <213> Homo sapiens

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 gaacaccagc tgcgacagcg gcttgggggtg ccaggacacg ttgatgctca 200
 ttgagagcgg accccaagtg agcctgggtgc tctccaaggg ctgcacggag 250
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 aatggccttg gacaccagat tctttcccat tctgtccatg aatcatcttc 1450

cccacacaca atcattcata tctactcacc taacagcaac actggggaga 1500
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<210> 16
<211> 437
<212> PRT
<213> Homo sapiens

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His Val Trp Lys Val Ser Asp Leu Pro Arg Gln Trp Thr Pro Lys
35 40 45
Asn Thr Ser Cys Asp Ser Gly Leu Gly Cys Gln Asp Thr Leu Met
50 55 60
Leu Ile Glu Ser Gly Pro Gln Val Ser Leu Val Leu Ser Lys Gly
65 70 75
Cys Thr Glu Ala Lys Asp Gln Glu Pro Arg Val Thr Glu His Arg
80 85 90
Met Gly Pro Gly Leu Ser Leu Ile Ser Tyr Thr Phe Val Cys Arg
95 100 105
Gln Glu Asp Phe Cys Asn Asn Leu Val Asn Ser Leu Pro Leu Trp
110 115 120
Ala Pro Gln Pro Pro Ala Asp Pro Gly Ser Leu Arg Cys Pro Val
125 130 135
Cys Leu Ser Met Glu Gly Cys Leu Glu Gly Thr Thr Glu Glu Ile
140 145 150
Cys Pro Lys Gly Thr Thr His Cys Tyr Asp Gly Leu Leu Arg Leu
155 160 165
Arg Gly Gly Gly Ile Phe Ser Asn Leu Arg Val Gln Gly Cys Met
170 175 180
Pro Gln Pro Gly Cys Asn Leu Leu Asn Gly Thr Gln Glu Ile Gly
185 190 195
Pro Val Gly Met Thr Glu Asn Cys Asn Arg Lys Asp Phe Leu Thr
200 205 210
Cys His Arg Gly Thr Thr Ile Met Thr His Gly Asn Leu Ala Gln
215 220 225
Glu Pro Thr Asp Trp Thr Thr Ser Asn Thr Glu Met Cys Glu Val

230	235	240
Gly Gln Val Cys Gln Glu Thr Leu Leu	Leu Ile Asp Val Gly Leu	
245	250	255
Thr Ser Thr Leu Val Gly Thr Lys Gly	Cys Ser Thr Val Gly Ala	
260	265	270
Gln Asn Ser Gln Lys Thr Thr Ile His	Ser Ala Pro Pro Gly Val	
275	280	285
Leu Val Ala Ser Tyr Thr His Phe Cys	Ser Ser Asp Leu Cys Asn	
290	295	300
Ser Ala Ser Ser Ser Ser Val Leu Leu	Asn Ser Leu Pro Pro Gln	
305	310	315
Ala Ala Pro Val Pro Gly Asp Arg Gln	Cys Pro Thr Cys Val Gln	
320	325	330
Pro Leu Gly Thr Cys Ser Ser Gly Ser	Pro Arg Met Thr Cys Pro	
335	340	345
Arg Gly Ala Thr His Cys Tyr Asp Gly	Tyr Ile His Leu Ser Gly	
350	355	360
Gly Gly Leu Ser Thr Lys Met Ser Ile	Gln Gly Cys Val Ala Gln	
365	370	375
Pro Ser Ser Phe Leu Leu Asn His Thr	Arg Gln Ile Gly Ile Phe	
380	385	390
Ser Ala Arg Glu Lys Arg Asp Val Gln	Pro Pro Ala Ser Gln His	
395	400	405
Glu Gly Gly Gly Ala Glu Gly Leu Glu	Ser Leu Thr Trp Gly Val	
410	415	420
Gly Leu Ala Leu Ala Pro Ala Leu Trp	Trp Gly Val Val Cys Pro	
425	430	435

Ser Cys

<210> 17

<211> 2387

<212> DNA

<213> Homo sapiens

<400> 17

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<210> 18
 <211> 487
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Ser Leu Leu Glu Pro Arg Asp Pro Val Ala Ser Ser Leu Ser Pro
 35 40 45
 Tyr Phe Gly Thr Lys Thr Arg Tyr Glu Asp Val Asn Pro Val Leu
 50 55 60
 Leu Ser Gly Pro Glu Ala Pro Trp Arg Asp Pro Glu Leu Leu Glu
 65 70 75
 Gly Thr Cys Thr Pro Val Gln Leu Val Ala Leu Ile Arg His Gly
 80 85 90
 Thr Arg Tyr Pro Thr Val Lys Gln Ile Arg Lys Leu Arg Gln Leu
 95 100 105
 His Gly Leu Leu Gln Ala Arg Gly Ser Arg Asp Gly Gly Ala Ser

110	115	120
Ser Thr Gly Ser Arg Asp Leu Gly Ala	Ala Leu Ala Asp Trp Pro	
125	130	135
Leu Trp Tyr Ala Asp Trp Met Asp Gly	Gln Leu Val Glu Lys Gly	
140	145	150
Arg Gln Asp Met Arg Gln Leu Ala Leu Arg	Leu Ala Ser Leu Phe	
155	160	165
Pro Ala Leu Phe Ser Arg Glu Asn Tyr Gly	Arg Leu Arg Leu Ile	
170	175	180
Thr Ser Ser Lys His Arg Cys Met Asp Ser	Ser Ala Ala Phe Leu	
185	190	195
Gln Gly Leu Trp Gln His Tyr His Pro Gly	Leu Pro Pro Pro Asp	
200	205	210
Val Ala Asp Met Glu Phe Gly Pro Pro Thr	Val Asn Asp Lys Leu	
215	220	225
Met Arg Phe Phe Asp His Cys Glu Lys Phe	Leu Thr Glu Val Glu	
230	235	240
Lys Asn Ala Thr Ala Leu Tyr His Val Glu	Ala Phe Lys Thr Gly	
245	250	255
Pro Glu Met Gln Asn Ile Leu Lys Lys Val	Ala Ala Thr Leu Gln	
260	265	270
Val Pro Val Asn Asp Leu Asn Ala Asp Leu	Ile Gln Val Ala Phe	
275	280	285
Phe Thr Cys Ser Phe Asp Leu Ala Ile Lys	Gly Val Lys Ser Pro	
290	295	300
Trp Cys Asp Val Phe Asp Ile Asp Asp Ala	Lys Val Leu Glu Tyr	
305	310	315
Leu Asn Asp Leu Lys Gln Tyr Trp Lys Arg	Gly Tyr Gly Tyr Thr	
320	325	330
Ile Asn Ser Arg Ser Ser Cys Thr Leu Phe	Gln Asp Ile Phe Gln	
335	340	345
His Leu Asp Lys Ala Val Glu Gln Lys Gln	Arg Ser Gln Pro Ile	
350	355	360
Ser Ser Pro Val Ile Leu Gln Phe Gly His	Ala Glu Thr Leu Leu	
365	370	375
Pro Leu Leu Ser Leu Met Gly Tyr Phe Lys	Asp Lys Glu Pro Leu	
380	385	390
Thr Ala Tyr Asn Tyr Lys Lys Gln Met His	Arg Lys Phe Arg Ser	
395	400	405

Gly Leu Ile Val Pro Tyr Ala Ser Asn Leu Ile Phe Val Leu Tyr
 410 415 420
 His Cys Glu Asn Ala Lys Thr Pro Lys Glu Gln Phe Arg Val Gln
 425 430 435
 Met Leu Leu Asn Glu Lys Val Leu Pro Leu Ala Tyr Ser Gln Glu
 440 445 450
 Thr Val Ser Phe Tyr Glu Asp Leu Lys Asn His Tyr Lys Asp Ile
 455 460 465
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 Asn Ser Thr Ser Asp Glu Leu
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<210> 19
 <211> 3554
 <212> DNA
 <213> Homo sapiens

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<210> 20
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 20

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Ala	Val	Asn	Leu	Lys	Ser	Ser	Asn	Arg	Thr	Pro	Val	Val	Gln	Glu		35	40	45	
Phe	Glu	Ser	Val	Glu	Leu	Ser	Cys	Ile	Ile	Thr	Asp	Ser	Gln	Thr		50	55	60	
Ser	Asp	Pro	Arg	Ile	Glu	Trp	Lys	Lys	Ile	Gln	Asp	Glu	Gln	Thr		65	70	75	
Thr	Tyr	Val	Phe	Phe	Asp	Asn	Lys	Ile	Gln	Gly	Asp	Leu	Ala	Gly		80	85	90	
Arg	Ala	Glu	Ile	Leu	Gly	Lys	Thr	Ser	Leu	Lys	Ile	Trp	Asn	Val		95	100	105	
Thr	Arg	Arg	Asp	Ser	Ala	Leu	Tyr	Arg	Cys	Glu	Val	Val	Ala	Arg		110	115	120	
Asn	Asp	Arg	Lys	Glu	Ile	Asp	Glu	Ile	Val	Ile	Glu	Leu	Thr	Val		125	130	135	
Gln	Val	Lys	Pro	Val	Thr	Pro	Val	Cys	Arg	Val	Pro	Lys	Ala	Val		140	145	150	
Pro	Val	Gly	Lys	Met	Ala	Thr	Leu	His	Cys	Gln	Glu	Ser	Glu	Gly		155	160	165	
His	Pro	Arg	Pro	His	Tyr	Ser	Trp	Tyr	Arg	Asn	Asp	Val	Pro	Leu		170	175	180	
Pro	Thr	Asp	Ser	Arg	Ala	Asn	Pro	Arg	Phe	Arg	Asn	Ser	Ser	Phe		185	190	195	
His	Leu	Asn	Ser	Glu	Thr	Gly	Thr	Leu	Val	Phe	Thr	Ala	Val	His		200	205	210	
Lys	Asp	Asp	Ser	Gly	Gln	Tyr	Tyr	Cys	Ile	Ala	Ser	Asn	Asp	Ala		215	220	225	
Gly	Ser	Ala	Arg	Cys	Glu	Glu	Gln	Glu	Met	Glu	Val	Tyr	Asp	Leu		230	235	240	
Asn	Ile	Gly	Gly	Ile	Ile	Gly	Gly	Val	Leu	Val	Val	Leu	Ala	Val		245	250	255	
Leu	Ala	Leu	Ile	Thr	Leu	Gly	Ile	Cys	Cys	Ala	Tyr	Arg	Arg	Gly		260	265	270	
Tyr	Phe	Ile	Asn	Asn	Lys	Gln	Asp	Gly	Glu	Ser	Tyr	Lys	Asn	Pro		275	280	285	
Gly	Lys	Pro	Asp	Gly	Val	Asn	Tyr	Ile	Arg	Thr	Asp	Glu	Glu	Gly					

	290	295	300
Asp Phe Arg His Lys Ser Ser Phe Val Ile			
	305	310	

<210> 21
 <211> 3437
 <212> DNA
 <213> Homo sapiens

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 gctgcagtgg ctggacagcc ctggcgtgga gggcgggccc ctgcgggcac 1000
 agctcaggat gcttgccagc caggcctcag ccgggcgcag gctcagtgat 1050
 gtgcgagggg ggctcctgcg cctggccgag gccctggcct tccgtcagga 1100
 cctggaggtg gtcagctcca ccgtccgtgc cgtcatcgcc accctgaggt 1150
 ctggggagca gtgcagcgtg gagccggacc tgatcagcaa agtcctccag 1200

gggctgatcg aggtgaggtc cccccacctg gaggagctgc tgactgcatt 1250
 cttctctgcc actgcgatg ctgcctcccc gtttccagcc tgtaagcccc 1300
 ttgtggtggt gagctccctg ctgctgcagg aggaggagcc cctggctggg 1350
 gggaagccgg gtgcggacgg tggcagcctg gaggccgtgc ggctggggcc 1400
 ctgctcaggc ctctagtgg actggctgga aatgctggac cccgaggtgg 1450
 tcagcagctg ccccgacctg cagctcaggc tgctcttctc ccggaggaag 1500
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 ctccggggccg gccgctggca tcagggggccg tccagcaagc cctcattcac 3350
 cttctggggc acagccctgc cgcggagcgg cggatcccc cgggcatggc 3400
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<210> 22
 <211> 1029
 <212> PRT
 <213> Homo sapiens

<400> 22
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 Gly Pro Pro Arg Ala Asp Asp Ser Glu Phe Gln Ala Leu Leu Asp
 20 25 30
 Ile Trp Phe Pro Glu Glu Lys Pro Leu Pro Thr Ala Phe Leu Val
 35 40 45
 Asp Thr Ser Glu Glu Ala Leu Leu Leu Pro Asp Trp Leu Lys Leu
 50 55 60
 Arg Met Ile Arg Ser Glu Val Leu Arg Leu Val Asp Ala Ala Leu
 65 70 75
 Gln Asp Leu Glu Pro Gln Gln Leu Leu Leu Phe Val Gln Ser Phe
 80 85 90
 Gly Ile Pro Val Ser Ser Met Ser Lys Leu Leu Gln Phe Leu Asp
 95 100 105

Gln Ala Val Ala His Asp Pro Gln Thr	Leu Glu Gln Asn Ile Met	
110	115	120
Asp Lys Asn Tyr Met Ala His Leu Val	Glu Val Gln His Glu Arg	
125	130	135
Gly Ala Ser Gly Gly Gln Thr Phe His	Ser Leu Leu Thr Ala Ser	
140	145	150
Leu Pro Pro Arg Arg Asp Ser Thr Glu	Ala Pro Lys Pro Lys Ser	
155	160	165
Ser Pro Glu Gln Pro Ile Gly Gln Gly	Arg Ile Arg Val Gly Thr	
170	175	180
Gln Leu Arg Val Leu Gly Pro Glu Asp	Asp Leu Ala Gly Met Phe	
185	190	195
Leu Gln Ile Phe Pro Leu Ser Pro Asp	Pro Arg Trp Gln Ser Ser	
200	205	210
Ser Pro Arg Pro Val Ala Leu Ala Leu	Gln Gln Ala Leu Gly Gln	
215	220	225
Glu Leu Ala Arg Val Val Gln Gly Ser	Pro Glu Val Pro Gly Ile	
230	235	240
Thr Val Arg Val Leu Gln Ala Leu Ala	Thr Leu Leu Ser Ser Pro	
245	250	255
His Gly Gly Ala Leu Val Met Ser Met	His Arg Ser His Phe Leu	
260	265	270
Ala Cys Pro Leu Leu Arg Gln Leu Cys	Gln Tyr Gln Arg Cys Val	
275	280	285
Pro Gln Asp Thr Gly Phe Ser Ser Leu	Phe Leu Lys Val Leu Leu	
290	295	300
Gln Met Leu Gln Trp Leu Asp Ser Pro	Gly Val Glu Gly Gly Pro	
305	310	315
Leu Arg Ala Gln Leu Arg Met Leu Ala	Ser Gln Ala Ser Ala Gly	
320	325	330
Arg Arg Leu Ser Asp Val Arg Gly Gly	Leu Leu Arg Leu Ala Glu	
335	340	345
Ala Leu Ala Phe Arg Gln Asp Leu Glu	Val Val Ser Ser Thr Val	
350	355	360
Arg Ala Val Ile Ala Thr Leu Arg Ser	Gly Glu Gln Cys Ser Val	
365	370	375
Glu Pro Asp Leu Ile Ser Lys Val Leu	Gln Gly Leu Ile Glu Val	
380	385	390
Arg Ser Pro His Leu Glu Glu Leu Leu	Thr Ala Phe Phe Ser Ala	

395	400	405
Thr Ala Asp Ala Ala Ser Pro Phe Pro	Ala Cys Lys Pro Val Val	
410	415	420
Val Val Ser Ser Leu Leu Leu Gln Glu	Glu Glu Pro Leu Ala Gly	
425	430	435
Gly Lys Pro Gly Ala Asp Gly Gly Ser	Leu Glu Ala Val Arg Leu	
440	445	450
Gly Pro Ser Ser Gly Leu Leu Val Asp	Trp Leu Glu Met Leu Asp	
455	460	465
Pro Glu Val Val Ser Ser Cys Pro Asp	Leu Gln Leu Arg Leu Leu	
470	475	480
Phe Ser Arg Arg Lys Gly Lys Gly Gln	Ala Gln Val Pro Ser Phe	
485	490	495
Arg Pro Tyr Leu Leu Thr Leu Phe Thr	His Gln Ser Ser Trp Pro	
500	505	510
Thr Leu His Gln Cys Ile Arg Val Leu	Leu Gly Lys Ser Arg Glu	
515	520	525
Gln Arg Phe Asp Pro Ser Ala Ser Leu	Asp Phe Leu Trp Ala Cys	
530	535	540
Ile His Val Pro Arg Ile Trp Gln Gly	Arg Asp Gln Arg Thr Pro	
545	550	555
Gln Lys Arg Arg Glu Glu Leu Val Leu	Arg Val Gln Gly Pro Glu	
560	565	570
Leu Ile Ser Leu Val Glu Leu Ile Leu	Ala Glu Ala Glu Thr Arg	
575	580	585
Ser Gln Asp Gly Asp Thr Ala Ala Cys	Ser Leu Ile Gln Ala Arg	
590	595	600
Leu Pro Leu Leu Leu Ser Cys Cys Cys	Gly Asp Asp Glu Ser Val	
605	610	615
Arg Lys Val Thr Glu His Leu Ser Gly	Cys Ile Gln Gln Trp Gly	
620	625	630
Asp Ser Val Leu Gly Arg Arg Cys Arg	Asp Leu Leu Leu Gln Leu	
635	640	645
Tyr Leu Gln Arg Pro Glu Leu Arg Val	Pro Val Pro Glu Val Leu	
650	655	660
Leu His Ser Glu Gly Ala Ala Ser Ser	Ser Val Cys Lys Leu Asp	
665	670	675
Gly Leu Ile His Arg Phe Ile Thr Leu	Leu Ala Asp Thr Ser Asp	
680	685	690

Ser Arg Ala Leu Glu Asn Arg Gly Ala Asp Ala Ser Met Ala Cys	695	700	705
Arg Lys Leu Ala Val Ala His Pro Leu Leu Leu Leu Arg His Leu	710	715	720
Pro Met Ile Ala Ala Leu Leu His Gly Arg Thr His Leu Asn Phe	725	730	735
Gln Glu Phe Arg Gln Gln Asn His Leu Ser Cys Phe Leu His Val	740	745	750
Leu Gly Leu Leu Glu Leu Leu Gln Pro His Val Phe Arg Ser Glu	755	760	765
His Gln Gly Ala Leu Trp Asp Cys Leu Leu Ser Phe Ile Arg Leu	770	775	780
Leu Leu Asn Tyr Arg Lys Ser Ser Arg His Leu Ala Ala Phe Ile	785	790	795
Asn Lys Phe Val Gln Phe Ile His Lys Tyr Ile Thr Tyr Asn Ala	800	805	810
Pro Ala Ala Ile Ser Phe Leu Gln Lys His Ala Asp Pro Leu His	815	820	825
Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu Lys Ser Leu	830	835	840
Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr Asp Arg	845	850	855
Gly Leu Asp Glu Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser Leu	860	865	870
Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu	875	880	885
Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu	890	895	900
Asp Leu Leu Glu Val Leu Ser Asp Ile Asp Glu Met Ser Arg Arg	905	910	915
Arg Pro Glu Ile Leu Ser Phe Phe Ser Thr Asn Leu Gln Arg Leu	920	925	930
Met Ser Ser Ala Glu Glu Cys Cys Arg Asn Leu Ala Phe Ser Leu	935	940	945
Ala Leu Arg Ser Met Gln Asn Ser Pro Ser Ile Ala Ala Ala Phe	950	955	960
Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln Asp Phe Glu Val	965	970	975
Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala Leu Leu Cys			

980	985	990
Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu Val Gly		
995	1000	1005
Met Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala Leu		
1010	1015	1020
Arg Ile Leu His Met Glu Ala Val Met		
1025		

<210> 23
 <211> 2186
 <212> DNA
 <213> Homo sapiens

<400> 23
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 atgaggctcc gcaatggcac ctctctgacg ctgctgctct tctgcctgtg 100
 cgccttcctc tcgctgtcct ggtacgcggc actcagcggc cagaaaggcg 150
 acgttgtgga cgtttaccag cgggagttcc tggcgctgcg cgatcggttg 200
 cacgcagctg agcaggagag cctcaagcgc tccaaggagc tcaacctggt 250
 gctggacgag atcaagaggg ccgtgtcaga aaggcaggcg ctgcgagacg 300
 gagacggcaa tcgcacctgg ggccgcctaa cagaggaccc ccgattgaag 350
 ccgtggaacg gctcacaccg gcacgtgctg cacctgccca ccgtcttcca 400
 tcacctgccca cacctgctgg ccaaggagag cagtctgcag cccgcggtgc 450
 gcgtggggcca gggccgcacc ggagtgtcgg tggatgatggg catccccgagc 500
 gtgcggcgcg aggtgcactc gtacctgact gacactctgc actcgctcat 550
 ctccgagctg agccccgagg agaaggagga ctcggtcatc gtggtgctga 600
 tcgccgagac tgactcacag tacacttcgg cagtgcagaga gaacatcaag 650
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 ttctctatga tgtacgcgca gtccaaaggc atctactacg tgcagctgga 850
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 ggcttcattg gtaagatgtt caagtcgctg gacctgagcc tgattgtaga 1000
 gttcattctc atgttctacc gggacaagcc catcgactgg ctctgggacc 1050

atattctgtg ggtgaaagtc tgcaaccccg agaaggatgc gaagcactgt 1100
 gaccggcaga aagccaacct gcggatccgc ttcaaaccgt ccctcttcca 1150
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 acaaagactt tggaaagcag gcgctgcgga aggagcatgt gaacccgcca 1250
 gcagaggtga gcacgagcct gaagacatac cagcacttca ccctggagaa 1300
 agcctacctg cgcgaggact tcttctgggc cttcaccctt gccgcggggg 1350
 acttcatccg cttccgcttc ttccaacctc taagactgga gcggttcttc 1400
 ttccgcagtg ggaacatcga gcacccggag gacaagctct tcaacacgtc 1450
 tgtggaggtg ctgcccttcg acaaccctca gtcagacaag gaggccctgc 1500
 aggagggccg caccgccacc ctccggtacc ctccgagccc cgacggctac 1550
 ctccagatcg gctccttcta caagggagtg gcagagggag aggtggaccc 1600
 agccttcggc cctctggaag cactgcgcct ctcgatccag acggactccc 1650
 ctgtgtgggt gattctgagc gagatcttcc tgaaaaaggc cgactaagct 1700
 gcgggcttct gagggtagcc tgtggccagc cctgaagccc acatttctgg 1750
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 ggaggcccta ggagctgggt ctgccccgc ccgcccggcc gcggaggagg 1900
 caggcggccc ccacactgtg cctgaggccc ggaaccgttc gcacccggcc 1950
 tgccccagtc aggcggtttt agaagagctt ttacttgggc gcccgcgctc 2000
 tctggcgcca aacttggaat gcatatacta ctttatgtgc tgtgtttttt 2050
 attcttggtat acatttgatt ttttcacgta agtcacata tacttctata 2100
 agagcgtgac ttgtaataaa ggtttaatga agaaaaaaaa aaaaaaaaaa 2150
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2186

<210> 24
 <211> 548
 <212> PRT
 <213> Homo sapiens

<400> 24
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 Leu Cys Ala Phe Leu Ser Leu Ser Trp Tyr Ala Ala Leu Ser Gly
 20 25 30

Gln Lys Gly Asp Val Val Asp Val Tyr Gln Arg Glu Phe Leu Ala	35	40	45
Leu Arg Asp Arg Leu His Ala Ala Glu Gln Glu Ser Leu Lys Arg	50	55	60
Ser Lys Glu Leu Asn Leu Val Leu Asp Glu Ile Lys Arg Ala Val	65	70	75
Ser Glu Arg Gln Ala Leu Arg Asp Gly Asp Gly Asn Arg Thr Trp	80	85	90
Gly Arg Leu Thr Glu Asp Pro Arg Leu Lys Pro Trp Asn Gly Ser	95	100	105
His Arg His Val Leu His Leu Pro Thr Val Phe His His Leu Pro	110	115	120
His Leu Leu Ala Lys Glu Ser Ser Leu Gln Pro Ala Val Arg Val	125	130	135
Gly Gln Gly Arg Thr Gly Val Ser Val Val Met Gly Ile Pro Ser	140	145	150
Val Arg Arg Glu Val His Ser Tyr Leu Thr Asp Thr Leu His Ser	155	160	165
Leu Ile Ser Glu Leu Ser Pro Gln Glu Lys Glu Asp Ser Val Ile	170	175	180
Val Val Leu Ile Ala Glu Thr Asp Ser Gln Tyr Thr Ser Ala Val	185	190	195
Thr Glu Asn Ile Lys Ala Leu Phe Pro Thr Glu Ile His Ser Gly	200	205	210
Leu Leu Glu Val Ile Ser Pro Ser Pro His Phe Tyr Pro Asp Phe	215	220	225
Ser Arg Leu Arg Glu Ser Phe Gly Asp Pro Lys Glu Arg Val Arg	230	235	240
Trp Arg Thr Lys Gln Asn Leu Asp Tyr Cys Phe Leu Met Met Tyr	245	250	255
Ala Gln Ser Lys Gly Ile Tyr Tyr Val Gln Leu Glu Asp Asp Ile	260	265	270
Val Ala Lys Pro Asn Tyr Leu Ser Thr Met Lys Asn Phe Ala Leu	275	280	285
Gln Gln Pro Ser Glu Asp Trp Met Ile Leu Glu Phe Ser Gln Leu	290	295	300
Gly Phe Ile Gly Lys Met Phe Lys Ser Leu Asp Leu Ser Leu Ile	305	310	315
Val Glu Phe Ile Leu Met Phe Tyr Arg Asp Lys Pro Ile Asp Trp			

320	325	330
Leu Leu Asp His Ile Leu Trp Val Lys	Val Cys Asn Pro Glu Lys	
335	340	345
Asp Ala Lys His Cys Asp Arg Gln Lys	Ala Asn Leu Arg Ile Arg	
350	355	360
Phe Lys Pro Ser Leu Phe Gln His Val	Gly Thr His Ser Ser Leu	
365	370	375
Ala Gly Lys Ile Gln Lys Leu Lys Asp	Lys Asp Phe Gly Lys Gln	
380	385	390
Ala Leu Arg Lys Glu His Val Asn Pro	Pro Ala Glu Val Ser Thr	
395	400	405
Ser Leu Lys Thr Tyr Gln His Phe Thr	Leu Glu Lys Ala Tyr Leu	
410	415	420
Arg Glu Asp Phe Phe Trp Ala Phe Thr	Pro Ala Ala Gly Asp Phe	
425	430	435
Ile Arg Phe Arg Phe Phe Gln Pro Leu	Arg Leu Glu Arg Phe Phe	
440	445	450
Phe Arg Ser Gly Asn Ile Glu His Pro	Glu Asp Lys Leu Phe Asn	
455	460	465
Thr Ser Val Glu Val Leu Pro Phe Asp	Asn Pro Gln Ser Asp Lys	
470	475	480
Glu Ala Leu Gln Glu Gly Arg Thr Ala	Thr Leu Arg Tyr Pro Arg	
485	490	495
Ser Pro Asp Gly Tyr Leu Gln Ile Gly	Ser Phe Tyr Lys Gly Val	
500	505	510
Ala Glu Gly Glu Val Asp Pro Ala Phe	Gly Pro Leu Glu Ala Leu	
515	520	525
Arg Leu Ser Ile Gln Thr Asp Ser Pro	Val Trp Val Ile Leu Ser	
530	535	540
Glu Ile Phe Leu Lys Lys Ala Asp		
545		

<210> 25

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 25

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 26
 <211> 41
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 26
 caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

 <210> 27
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 27
 actcgggatt cctgctgtt 19

 <210> 28
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 28
 aggcctttac ccaaggccac aac 23

 <210> 29
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 29
 ggctgtcct gtgtttctca 19

 <210> 30
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide Probe

 <400> 30
 tcccaccact tacttccatg aa 22

 <210> 31
 <211> 25
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 31

ctgtggtacc caattgccgc cttgt 25

<210> 32

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 32

attgtcctga gattcgagca aga 23

<210> 33

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 33

gtccagcaag ccctcatt 18

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 34

cttctgggcc acagccctgc 20

<210> 35

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 35

cagttcaggt cgtttcattc a 21

<210> 36

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 36

ccagtcaggc cgttttaga 19

<210> 37

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 37

cgggcgccca agtaaaagct c 21

<210> 38

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 38

cataaagtag tatatgcatt ccagtgtt 28